

AGENDA ITEM V J

PROGRESS REPORT ON CONDITIONALLY APPROVED PROGRAMS

BOSSIER PARISH COMMUNITY COLLEGE

A.A.S. PROGRAMS IN CYBER TECHNOLOGY

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BACKGROUND INFORMATION

At its meeting of April 2008, the Board of Regents acted as follows:

Conditional approval is granted for the following Associate of Applied Science (A.A.S.) programs at Bossier Parish Community College: 1) Web Analyst Programmer (CIP Code 11.1004) 2) Information Programmer-Analyst (CIP Code 11.0299) 3) Information Network Specialist (CIP Code 11.1002) 4) Information Network Security Specialist (CIP Code 11.1003) 5) Information Systems Administration Specialist (CIP Code 11.1001) These programs shall be subject to the following stipulations:

- 1. Beginning August 1, 2008, and every three months thereafter until further notice, the College shall report to the Associate Commissioner for Academic Affairs the status of cyber technology industry activity in the Greater Shreveport/Bossier area and related plans by the College to respond to these developments. In particular, issues and concerns with regard to approval, funding, and development of the projected Cyber Command Center, the Cyber Innovation Center, the National Cyber Research Park and the Cyber Technology “Center of Excellence” as discussed in the staff summary shall be addressed.**
- 2. On the same date as above, and yearly thereafter until NAIT program accreditation for each proposed programs has been achieved, the College shall also report to the Associate Commissioner for Academic Affairs the status of needed faculty, staff, facilities, equipment, and other learning resources, including budgetary explanations concerning sources and amounts of funding for each item.**
- 3. Provided all is in order with regard to the contents of the initial two reports described in numbers 1 and 2 above, program implementation for Fall, 2008 will be considered at the August, 2008 meeting of the Board of Regents.**

Dr. Stan Wilkins, Vice President for Academic Affairs at the College, submitted their report relative to stipulations above, on July 25, 2008.

STAFF ANALYSIS

1. Status of Cyber Technology Industry in Shreveport

The report from BPCC states the following:

Cyber Command Center – *The United States Air Force continues to study the location(s) for a permanent headquarters for AFCYBER. The provisional headquarters is located at Barksdale Air Force Base in Bossier City, Louisiana. The Air Force has concluded “...that the organizational concept for AFCYBER headquarters is not yet decided and may result in the command staff being consolidated at a single (Air Force) installation, distributed at multiple locations, or an appropriate combination of the two” (Air Force Print News Today, May 19, 2008). The Air Force has sent a series of letters to governors in states expressing an interest in hosting the permanent location for the Air Force Cyber Command. The governors are being asked to respond to a number of items including the following:*

- 1. If similar activities such as intelligence and space/satellite operations already operate at the (Air Force) installation*
- 2. Proximity to existing high-technology processes or centers*
- 3. If local universities or businesses support an existing Cyber-related workforce*

Governor Jindal has responded to this request, and latest estimates indicate that a final decision on the location(s) of the Cyber Command may come in September 2009 (U. S. Air Force Fact Sheet, Spring, 2008).

Because of the provisional headquarters of the Cyber Innovation Center located in Bossier City at Barksdale, because of creation of the Cyber Innovation Center located adjacent to the Bossier Parish Community College campus, and because Bossier Parish Community College plans to offer the six new cyber programs, the College believes it is in a unique position and location to participate in a significant way in the cyber initiative.

Cyber Innovation Center and the National Cyber Research Park – *Ground breaking for the Cyber Innovation Center was held on January 21, 2008. Located adjacent to the Bossier Parish Community College campus, the center is part of the National Cyber Research Park (NCRP). Act 7 (HB 46) of the 2nd Extraordinary Session of the Louisiana Legislature appropriated \$57,000,000 for Cyber Innovation Center infrastructure, transportation infrastructure, planning, and construction for the Cyber Innovation Center (Act 7, Second Extraordinary Session, 2008).*

Center of Excellence – *The “Centers of Excellence” proposal of the Louisiana Community and Technical College System Board of Supervisors remains an on-going initiative. (LCTCS 2008 Advocacy Agenda). Funding for the Centers to be located at*

four community and technical colleges was not appropriated in the 2008 Regular Legislative Session. Plans for seeking funding have been moved forward to sessions of the legislature in 2009 (Delivering on the Guarantee, by Dr. Joe May, July 8, 2008). The proposal contains \$12.7 million for a Bossier Parish Community College building in which to house the teaching and administrative offices for the Bossier Parish Community College Cyber Technology Division, the administrative unit in which will be housed the cyber associate degrees. It is anticipated that funding sources for construction of the building will emerge to enable the College to house the anticipated growth of the cyber technology degrees as curricula expand to include newly established courses. With legislative consideration and approval of the proposed LCTCS Centers of Excellence, supported by the utilization of alternative financing, Bossier Parish Community College can reasonably expect to construct a new Cyber building for occupation by the latter half of the 2010-11 academic year.

2. Status of Resources/Funding for Cyber Technology Programs

The College report notes:

a. Faculty/Staff

1. Numbers

Bossier Parish Community College is projecting the need for additional full-time faculty and two adjuncts per program per semester to initiate the new associate degrees in cyber technology. In addition, a new academic division with a full-time division head and administrative assistant are projected. As the program grows, it is estimated that the addition of new faculty, both full-time and adjunct, will be needed. The exact projection of numbers of new faculty will depend on program growth. For the first year of the program, new faculty will be assigned a combination of instruction and program development. As more courses come on line in year two of the program, new faculty will be required to begin teaching the upper level and capstone courses. By year three of the program, depending on program growth, it may be necessary to hire additional full-time faculty.

2. Qualifications

Faculty qualifications for the cyber technology courses will include the minimum faculty qualifications for positions at the College: a master's degree and eighteen graduate hours in the field. In the case of cyber technology, faculty with master's degrees in computer information technology and cyber technology will be sought. In addition, specific experience in the various areas in the associate degrees proposed will be sought:

A A S in Information Network Specialist – Faculty should have experience in designing, maintaining, administering, and troubleshooting data and voice networks with training in network operating systems, user administration, and network design.

A A S in Information System Administration Specialist - Faculty should have experience in overseeing/administering computer network systems including installation and configuration and operation of client and server systems including Microsoft Windows 2003 server, Windows XP, e-mail services, Netware and Linux.

A A S in Information Programmer Analyst - Faculty should have experience in inputting and retrieving network data

A A S in Web Analyst Programmer – Faculty should have experience in developing and maintaining web servers in a variety of public and private employment sources, including government, insurance, manufacturing, service, software development, wholesale and retail sales, utilities, banking, and accounting.

A A S in Information Network Security Specialist - Faculty should have experience in network security protection including confidentiality and assurance.

3. Staff

It is anticipated that an additional classified staff individual will have to be hired as the administrative secretary for the newly created division on cyber technology.

4. Costs

Faculty/Staff Annual Cost Estimates for the program:

5 full-time faculty @ \$60,000	=	\$ 300,000 (for the associate degrees)
Benefits (20%)	=	\$ 60,000
1 full-time faculty @ \$ 50,000	=	\$ 50,000 (for the certificate)
Benefits (20%)	=	\$ 10,000
2 adjunct sections per semester/year		
(20 adjunct sections @ \$1500)	=	\$ 30,000
Benefits (9%)	=	\$ 2,700
1 academic department chair	=	\$ 70,000
Benefits (20%)	=	\$ 14,000
1 departmental administrative asst.	=	\$ 30,000
Benefits (20%)	=	\$ 6,000
Administrative secretary		
(based on experience)	=	\$ 21,000 - \$ 32,000
Benefits (20%) range	=	\$ 4,200 - \$ 6,400
Total		\$ 597,900 – 622,300

b. Facilities

Bossier Parish Community College plans to house temporarily its new Cyber Technology Division on the current campus in what is designated as Building G on the Bossier Parish Community College campus. It is a three-story, multi-purpose building housing classrooms, computer laboratories, and contains the Division of Liberal Arts, the Division of Business and Computer sciences, and the Computer Services/Technology support center for the College. A Space Utilization Audit revealed that classroom space available in G Building is adequate to support the start-up classes projected in the cyber curricula. However, as the existing academic divisions in Business/Computer Science, Liberal Arts, and the computer services center grow, a new Cyber Technology Building will need to be constructed to house additional classrooms and computer laboratories dedicated to cyber technology.

Bossier Parish Community College is designated as one of four “Centers for Excellence” in the Louisiana Community and Technical College Board of Supervisors Advocacy Agenda. Accordingly, plans call for the construction of a \$12.7 million building on the Bossier Parish Community College campus at the south end of the new campus quadrangle. The building will be constructed through the alternative financing process similar to the one which Bossier Parish Community college used to construct its campus. The Louisiana Community and Technical College System is committed to securing the funds as part of the LCTCS Centers for Excellence. Until the new building is completed, the College will house courses in Building G.

c. Equipment

Bossier Parish Community College will be able to utilize existing equipment in computer classrooms and laboratories housed in Building G during the initial new CIT course offerings in the spring, 2009. Thus, it will be possible to begin the programs in the fall, 2008 with a minimum purchase of new equipment. New equipment will be purchased in the spring and summer, 2009 projected as follows, with costs and source of funding listed below.

More specifically, Bossier Parish Community College will be awarded a 2008-09 Carl Perkins Basic Grant (administered through the Louisiana Community and Technical College System) The amount of \$244,847 to support the Cyber Degree/Certificate programs will be allocated as follows:

<i>135 desktop computers</i>	<i>(@ \$1,047)</i>	<i>=</i>	<i>\$</i>	<i>141,345</i>
<i>27 Servers</i>	<i>(@ \$1,345)</i>	<i>=</i>		<i>36,558</i>
<i>24 printers</i>	<i>(@ \$1,053)</i>	<i>=</i>		<i>25,272</i>
<i>8 media projectors/screens</i>	<i>(@ \$5,209)</i>	<i>=</i>		<i>41,672</i>
<i>Total</i>				<i>\$ 244,847</i>

The above hardware will be used to equip the proposed laboratories and teaching stations in the existing facility and in the proposed Cyber Technology building to be constructed as part of the Louisiana Community and Technical College System Center of Excellence. An award notice should be received by Bossier Parish Community College by July 31, 2008. Funds must be expended by June 30, 2009. In addition, approximately \$1,200 for storage cabinets will be secured with College general funds.

d. Learning Resources

Present library holdings are adequate to initiate the Associate of Applied Science degrees in cyber technology. However, because of the rapid changing technology required to support and enhance the College's ability to educate students in the latest state-of-the-art material the College recognizes its obligation to support the associate degrees in cyber technology with the latest learning resources. Accordingly, library holdings will need to be expanded and improved to stay current in the rapidly expanding field of Cyber Information. New acquisitions will include books, periodicals, reference works, and e-books.

Bossier Parish Community College is a member of the Louisiana Library Network and the Louisiana Academic Library Information Network Consortium. Bossier Parish Community College is a participating partner with other Louisiana state and private institutions.

In its original proposals for associate degrees in cyber technology, Bossier Parish Community college projected the following expenses to acquire periodical titles, books, and audiovisual materials, as well as cyber software support materials to provide learning resources to support the associate degrees and certificate in cyber technology:

2008-2009	\$28,807
2009-2010	\$20,000
2010-2011	\$20,000
2011-2012	\$22,050
2012-2013	\$23,150

Learning resources will be added while upper-level capstone courses mature as part of the final curriculum. These figures, however, represent only best estimates. When courses are developed to complete the curriculum, refinement in expenditures is contemplated with the college prepared to allocate appropriate funds from the general operating budget for learning resources to support the cyber technology degrees and certificate. These funds are expected to be allocated from the increase in institutional funding outlined in the budget section.

e. Program Budget

1. *Workforce Training Rapid Response Fund: Funding for the five new associate degrees in cyber technology and the certificate in help desk support will come in part from the “Workforce Training Rapid Response Fund.” This fund was established by ACT 890 of the 2008 Regular Legislative Session and is projected as an annual legislative appropriation of \$10 million to the Louisiana Community and Technical College System. The purpose of the act is in part to fund “...education programs whose purpose is to assist citizens to improve their employment opportunities...(and)... articulated career path programs and constituent courses of such programs that lead to initial or continuing licensure, certification, or associate degree level accreditation; and other education programs whose purpose is to assist citizens to improve their employment opportunities” (ACT 890, 2008 Regular Legislative Session).*

Amount: Unknown

2. *General Fund: Additional funding for the five new associate degrees in cyber technology and the certificate in help desk support will come in part from the Bossier Parish Community College general fund. The College received an increase of approximately \$1.7 million in formula funding from the Louisiana Board of Regents for fiscal year 2009 over fiscal year 2008. State general fund appropriations increased from \$13,668,543 in 2007-08 to \$15,331,889 in fiscal 2008-09. (House Bill 1, 2007 and 2008 Regular Legislative Sessions.)*

Amount: \$1,663,346

3. *Grants:*

National Science Foundation – Cyber-Enabled Discovery and Innovation (CDI) the Bossier Parish Community College Director of Grants and External Funding is preparing the required Letter of intent, due August 30 – September 30, 2008. Preliminary proposals are due October 4 – November 4, 2008, and full proposals (by invitation only – based on review of preliminary proposal) are due January 27 – February 27, 2009. Bossier Parish Community College will request approximately \$500,000.

National Science Foundation – Advanced Technological Education(ATE) With an emphasis on two-year colleges, the Advanced Technological Education (ATE) program focuses on the education of technicians for the high-technology fields that drive the nation's economy. The program involves partnerships between academic institutions and employers to promote improvement in the education of science and engineering technicians at the undergraduate and secondary school

levels. The ATE program supports curriculum development; professional development of college faculty and secondary school teachers; career pathways to two-year colleges from secondary schools and from two-year colleges to four-year institutions; and other activities. A secondary goal is articulation between two-year and four-year programs for K-12 prospective teachers that focus on technological education. The application is due to the agency on October 16, 2008, and Bossier Parish Community College will request \$250,000. Bossier Parish Community College and LTC District 8 will jointly submit this federal grant. The Bossier Parish Community College Director of Grants and External Funding and the Dean of Workforce Development, LTC Region 8, will jointly prepare and submit this grant.

National Science Foundation: Cyber Trust (due 12-09-08) - The NSF Cyber Trust (CT) program funds proposals to cover a broad range of disciplines contributing to the CT vision. Four types of CT projects are funded: Exploratory Research projects typically explore new and untested ideas, have budgets of up to \$200,000 total, and have durations of up to 2 years; Single Investigator and Small Group projects typically involve 1-2 PIs and their students, have budgets of up to \$500,000 total, and have durations of up to 3 years; Medium projects demonstrate an active collaboration that brings together 2 or more PIs with complementary expertise to explore a common research problem, have budgets of up to \$1,500,000 total, and have durations of up to 3 years; and, Large projects must focus on achieving a common goal or set of goals, articulate an effective collaboration and management plan, have budgets of up to \$3,000,000 total, and have durations of up to 3 years.

BoR Support Fund – The Bossier Parish Community College Director of Grants is preparing an application to the Louisiana Board of Regents Support Fund (which makes grants available to enhance an academic unit or division.) due October 2008 in the amount of \$50,000 to defray costs of equipment, software, and professional development. Specificity of line item funding requests will be available at the time of grant submission and is expected to augment moneys from the Carl Perkins Basic Grant.

Frost Foundation – funds programs “...directed primarily to support exemplary organizations and programs that generate positive change beyond traditional boundaries, encourage creativity, recognize emerging needs, and assist innovation to addresses current urgent problems” (Frost Foundation Guidelines, 2005). The Bossier Parish Community College Director of Grants and External Funding is currently preparing the pre-proposal/summary for this grant, which is due by December 1, 2008. The summary will include a description of the need for Cyber funding, a description of the Bossier Parish Community College Cyber project, its goals and objectives, procedures for planning and implementing the program, and qualified personnel to staff the program. A specific budget is not

necessary at the summary stage. However, Bossier Parish Community College will request \$75,000 for equipment, software, and professional development.

Amount: Unknown

4. Center for Excellence Building

Amount: \$12,700,000

(Note: It should be noted that no attempt is made to project an increase in funds generated by student tuition/fees as a result of anticipated enrollment increases when the Cyber programs are fully operational. Moreover, the receipt of additional grant funds with specific awards cannot be projected at this time.)

f. Program Timeline

Bossier Parish Community College plans to utilize the fall semester 2008 to hire needed faculty, administration, and staff to begin operational status of the new academic division in the spring of 2009. The current building housing the division of Business and Computer Science will house the new academic division until the new cyber technology building is completed.

g. Conclusion

Bossier Parish Community College is excited about the possibilities of being a major partner in the cyber technology initiative in northwest Louisiana. The prospects of a Cyber Command Center, located in the area, provide the College with a unique challenge. The College can facilitate educational opportunities on the associate degree/certificate level for personnel in businesses and industries in the community in support of the Cyber Innovation Center. The location of the Cyber Innovation Center adjacent to the Bossier Parish Community College campus and the Cyber Command Center when located on Barksdale Air Force Base in Bossier City enable the College to have contiguous partners in Cyber initiatives. With the addition of five new cyber associate degrees and one certificate of cyber technical support, Bossier Parish Community College will join, through its newly created academic Cyber Technology Division, an emerging partnership to train an educated workforce in cyber security technology. As the College has moved forward in the cyber initiative, details and implementation strategies have become clearer and specific plans have been clarified, though on-going strategies are evolving as Bossier Parish Community College looks forward to being a significant player in the Cyber endeavor.

STAFF SUMMARY

The staff continues to be impressed by the quality of work being done at BPCC in preparation for the implementation of a slate of five A.A.S. programs to service possible Cyber Technology industry needs.

Specific details regarding the evolution of this industry and its personnel/ training needs remain elusive. This is not the fault of the College, but rather a reflection of the U.S. Air Force deliberative process. Ergo, the College has responded as best as possible to stipulation #1.

Program planning continues appropriately, even in the face of budgeting decisions yet to be made. If the program needs develop as projected, the College has provided a reasonable plan for program provision and implementation. Again, the lack of assuredness is not the fault of the College, as monies are unlikely to appear until industrial development is secured. Ergo, the College has responded as best as possible to stipulation #2.

What remains to be decided is whether the College's responses are sufficient to justify immediate program implementation. It is the staff's opinion that given the College's excellent preparation so far, they should be entrusted with program implementation, even if some traditional pre-program expectations have not been fulfilled. The College, however, must be careful not to overextend itself during this first year—the programs should not develop beyond actual tangible evidence of local need for graduates and concomitant monetary support required to ensure quality program development.

Given that significant outstanding decisions by external parties that could affect the future of these programs are not expected anytime soon, the staff further recommends that the due date for the next progress report be extended until January 15, 2009.

STAFF RECOMMENDATION

The staff recommends that the Academic and Student Affairs Committee receive the August 2008 Progress Report from Bossier Parish Community College Relative to Development of Five A.A.S. Programs in Cyber Technology. Based on the contents of this report, the Committee authorizes immediate implementation for all five of these degrees. The College shall proceed cautiously and carefully with program implementation, as supported by proven industrial need for program graduates and the availability of essential resources required of high-quality programs.

The next progress report addressing these same matters shall be due to the Associate Commissioner for Academic Affairs by January 15, 2009.